

REMARKS/ARGUMENTS

Claim Rejection Under 35 U.S.C. 102 (e)

In the Office Action, the Examiner rejected claims 1-3, 14-20 and 26-27 under 35 U.S.C. 102(e) as being anticipated by Kikitsu et al. (6,602,620). The Applicants have amended independent claims 1, 14 and 27 to overcome these rejections.

On page 2-3 of the Office Action the Examiner rejected claims 1-3 under 35 U.S.C. 102(e) as being anticipated by Kikitsu. In response to this rejection the Applicants have amended claim 1 to incorporate the limitations of claims 3 and 6 and have withdrawn claim 3. Therefore, in light of this amendment the Applicants respectfully request that the Examiner withdraw his rejection of claims 1-3 under 35 U.S.C. 102(e).

On pages 3-4 of the Office Action the Examiner rejected claims 14-20 under 35 U.S.C. 102(e) as being anticipated by Kikitsu. In response to this rejection the Applicants have amended claim 14 to incorporate the limitation of claim 18. Moreover, the Applicants respectfully traverse the Examiner's rejection of claim 18 under 35 U.S.C. 102(e) as being anticipated by Kikitsu et al.

On page 3 paragraph 5 of the Office Action the Examiner states "regarding claim 18, Kikitsu et al. disclose all the limitations of claim 17 upon which claim 18 depends, wherein the means for changing the magnetic properties of portions of the recording layer comprises means for exposing the mask and the exposed portions of the recording layer to a plasma (column 21, lines 40-43), wherein the magnetic properties of at least one layer in the exposed portions of the recording layer are changed." Kikitsu teaches in column 21, lines 40-43 "In the step (d), plasma generated in carbon monoxide and/or

ammonia can be employed as a RIE reaction gas for etching the magnetic material.”

18 { This is different than claim 18 because in claim 18 the magnetic properties are changed but the magnetic material is not etched away. Etching means removing the magnetic material and not changing the magnetic properties. The Applicants submit that removing magnetic material is not the same as changing the magnetic properties of the material. The magnetic properties of a material can be changed without removing a portion of the magnetic material. Furthermore, the Applicants submit that etching away a portion of the magnetic material may not cause the magnetic properties of the materials to change. Therefore the Applicants submit that Kikitsu et al does not anticipate claim 18 and respectfully requests that the Examiner reconsider his rejection of claim 18 under 35 U.S.C. 102(e). Additionally, the Applicants respectfully request that the Examiner reconsider his rejection of claims 14-20 because Kikitsu does not anticipate claim 14 as amended and argued.

The Examiner rejected claim 26 under 35 U.S.C. 102(e) as being anticipated by Kikitsu. On page 4 paragraph 2 of the Office Action the Examiner argues

Regarding claim 26, Kikitsu et al. disclose a magnetic recording media for a storage device, comprising: non-recordable regions in the magnetic recording media (column 21, lines 29-30); and recordable regions in the magnetic recording media (column 21, lines 27-28), wherein the coercivity of the non-recordable regions differ from the coercivity of the recordable regions (a magnetic material (recordable regions) have a high coercivity and a non-magnetic material (non-recordable regions) have a low coercivity.

The Applicants respectfully traverse. The Examiner comparison of the coercivity of a magnetic material with the coercivity of a non-magnetic material does not make sense because non-magnetic materials do not possess the property of coercivity. In order to have a meaningful discussion about the magnetic properties of a material, such as

coercivity, the material must first be magnetic. Although the Examiner's attempt to associate a value of zero coercivity to a non-magnetic material is cleaver, it is unheard off and unfair because it is meaningless to speak of coercivity for non-magnetic material. In light of these arguments the Applicants respectfully request that the Examiner withdraw his rejection of claim 26 under 35 U.S.C. 102(e).

The Examiner rejected claim 27 under 35 U.S.C. 102(e) as being anticipated by Kikitsu. On page 4 paragraph 3 of the Office Action the Examiner argues

Regarding claim 27, Kikitsu et al. disclose a storage system, comprising: a storage disk having recordable and non-recordable regions, wherein the recordable regions and nonrecordable regions are defined by different magnetic properties in a recording layer on the storage disk (column 21, lines 38-40, the recordable and non-recordable regions are formed by the magnetic and non-magnetic regions, these regions have different magnetic properties); and means for reading from, and writing to, the recordable regions on the storage disk (column 4, lines 38-42).

The Applicants respectfully traverse. Kikitsu teaches in column 21 lines 38-40 "... (b), and a recess is formed in the magnetic layer in the step (d), and then, non-magnetic layer as a matrix is filled in the recess in the step (e)..." In his rejection the Examiner has equated the notion of comparing two materials having different magnetic properties with the notion of comparing a non-magnetic material to a magnetic material. Although the Examiner is correct in saying that a non-magnetic material has different properties than a magnetic material, this comparison does not capture the gist of this invention. This invention is comparing two magnetic materials and not a magnetic material with another non-magnetic material. In order to better qualify this distinction, the Applicant's have amended claim 27 to include the limitation that both the recordable and non-recordable regions are magnetic. In light of these arguments and amendment the Applicants

respectfully request that the Examiner withdraw his rejection of claim 26 under 35 U.S.C. 102(e).

Claim Rejection Under 35 U.S.C. 103(a)

In the Office Action, the Examiner rejected claims 4-13 under 35 U.S.C. 103(a) as being unpatentable over Kikitsu et al. in view of Nakatani (6,391,216).

Regarding claims 4 and 5 the Examiner argues:

Kikitsu et al. discloses all the limitations of claim 3 upon which claim 4 depends. Kikitsu et al. fail to explicitly disclose defining a pattern in the mask using photolithography and exposing portions of the recording layer. However these limitations are well known in the art as evidenced by Nakatani which teach a method for defining a pattern in a magnetic material using photolithography (column 1, lines 27-28, the magnetic material being treated as the recording layer) and exposing portions of the recording layer (column 1, lines 28-29).

The Applicant's respectfully traverse this argument. Nevertheless independent claim 1, from which dependent claims 4 and 5 depend, have amended to overcome this rejection.

Regarding claim 6, the Examiner argues, "Kikitsu et al. in view of Nakatani disclose all the limitations of claim 5 upon which claim 6 depends. Kikitsu et al. further disclose the step of changing the magnetic properties of portions of the recording layer comprises the step of exposing the mask and the exposed portions of the recording layer to a plasma (column 21, lines 40-41), wherein the magnetic properties of at least one layer in the exposed portions of the recording layer are changed." The Applicants vigorously traverse.

In order to establish *prima facie* obviousness of a claimed invention three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) And MPEP 2143. The Applicants respectfully submit that the Examiner has not satisfied all three criteria outlined in MPEP 2143.

First, the prior art references Kikitsu and Nakatani do not teach or suggest all the claim 6 limitations either in their present state or in their originally filed state. In claim 6 the magnetic properties of at least one layer in the exposed portions of the recording layer are changed. Contrast this with the Kititsu, which removes the magnetic layer. Kititsu teaches removing the magnetic layer and not changing the magnetic layer. Although the Applicant appreciates the Examiner's argument that removing the magnetic layer can be interpreted as changing the magnetic layer the two are not the same. Please see above for arguments directed to the notion that etching or removing magnetic material is the same as changing the magnetic properties of materials.

Regarding claims 7-13, the Applicant submits that since claims 7-13 are dependent on independent claim 1 and the amended claim 1 is patentable, for reasons stated above, then claims 7-13 are patentable.

In the Office Action, the Examiner rejected claims 21-25 under 35 U.S.C. 103(a) as being unpatentable over Kikitsu et al. in view of Kondo (6,254,966).

Regarding claims 21 and 22 the Examiner argues, "Kikitsu et al. disclose all the limitations of claim 16 upon which claim 21 depends. Kikitsu et al. fail to explicitly

disclose the means for defining a pattern in the mask compresses portions of the mask and removing the compressed portions of the mask. However these limitations are well known in the art as evidenced by Kondo which discloses that the mask may be compressed against the recording layer..." The Applicants submit that neither Kikitsu nor Kondo teach the limitation of claim 14, as amended, from which claim 16 depends. Specifically claim 14 comprises a "means for changing the magnetic properties of portions of the recording layer by exposing the mask and the exposed portions of the recording layer to a plasma, wherein the magnetic properties of at least one layer in the exposed portions of the recording layer are changed, in order to create recordable regions or non-recordable regions in the recording layer," which is not disclosed by Kikitsu or Kondo because neither teaches changing the magnetic properties of at least one of the layers.

Regarding claims 23-25, the Applicant submits that since claims 23-25 are dependent on independent claim 14 and the amended claim 14 is patentable, for reasons stated above, then claims 23-25 are patentable.

Conclusion

In light of the above remarks and amendments, this application should be considered in condition for allowance and the case passed to issue. If there are any questions regarding these remarks or the application in general, a telephone call to the undersigned would be appreciated to expedite prosecution of the application.

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required,

applicants petition for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 19-1036.** Please credit any excess fees to such deposit account.

3/23/2004
Date

Respectfully submitted,
SEAGATE TECHNOLOGY LLC
(Assignee of Entire Interest)

Jesus Del Castillo
Jesus Del Castillo, Reg. No. 51,604
SEAGATE TECHNOLOGY LLC
920 Disc Drive, SV15B1
Scotts Valley, CA 95066-4544
(831) 439-7529 (telephone)
(831) 438-1290 (facsimile)
Customer Number 28063